

ABSTRACT OF THE DISCLOSURE

A seismic sensor, comprising a case, a pre-charged, non-conductive membrane located between two plates that form a capacitor and accommodated inside the case, with one of the plates being immovable relative to the case and the other of the plates being movable relative to the one plate under the action of seismic activity so that the capacitor produces an electrical signal responsive to the seismic activity of a medium in which the sensor is located, and a mass increasing element associated with the movable plate so as to increase mass of the movable plate and therefore to enhance oscillations of the movable plate under the action of the seismic activity, the mass increasing element being formed as a further case which is connected to the movable plate and is located in condition of equilibrium in an inoperative position of the sensor.